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RIGID CARTON OF PACKETS OF CIGARETTES

5

TECHNICAL FIELD

10 The present invention relates to a rigid carton of packets of cigarettes.

BACKGROUND ART

A rigid carton of packets of cigarettes is normally defined by a parallelepiped-shaped container formed by folding a blank about a group of five/ten packets of
15 cigarettes, and having a top portion which is torn open by the user along a precut tear line to extract the packets of cigarettes. A user normally removes one packet of cigarettes at a time from the carton at intervals
20 normally ranging between one and three days, so the carton is used for three to thirty days by a normal user, depending on the number of packets of cigarettes in the carton (normally five or ten) and the number of cigarettes normally smoked by the user. Once the carton
25 is opened, however, e.g. by tearing along a precut tear line, it cannot be closed again, as normally required in the case of relatively prolonged use. Known rigid cartons of packets of cigarettes also fail to provide for

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adequate mechanical protection of the packets.

WO-0010892-A discloses a carton for containing a plurality of packs of cigarettes and having a shell and slide construction. One end of the shell is partially open to allow the user to push the lidded slide, containing packs of cigarettes, to an open position; this is defined by a hooking engagement between shell and slide to expose just a little more of a lid of the slide than a detachable portion, which is detached by the user to expose only one pack at a time for extraction from the carton. However, the rigid carton of packets of cigarettes disclosed by WO-0010892-A is relatively complex and thus expensive to produce.

DISCLOSURE OF INVENTION

It is an object of the present invention to provide a rigid carton of packets of cigarettes, designed to eliminate the aforementioned drawbacks, and which, in particular, is cheap and easy to produce.

According to the present invention, there is provided a rigid carton of packets of cigarettes, the carton comprising a first container for a group of packets of cigarettes, a second container housing the first container in sliding manner, so as to enable the first container to slide, with respect to the second container, between a closed position wherein the first container is fully inserted inside the second container, and an open position wherein part of the first container is extracted from the second container; the first

container being cup-shaped, and comprising an open top end, a bottom wall opposite the open top end, two opposite parallel lateral walls, and two opposite parallel, respectively front and rear, end walls; the
5 carton being characterized in that the bottom wall of the first container comprises at least one through hole sized to permit insertion of a user's finger.

BRIEF DESCRIPTION OF THE DRAWINGS

A number of non-limiting embodiments of the present
10 invention will be described by way of example with reference to the accompanying drawings, in which:

Figure 1 shows a front view in perspective of a preferred embodiment of a rigid carton of packets of cigarettes in accordance with the present invention and
15 in an open configuration;

Figure 2 shows an exploded view in perspective of the Figure 1 carton;

Figure 3 shows a rear view in perspective of the Figure 1 carton in a closed configuration;

20 Figure 4 shows a plan view of a blank from which to form an inner container of the Figure 1 carton;

Figure 5 shows a plan view of a blank from which to form an outer container of the Figure 1 carton;

Figure 6 shows a front view in perspective of an
25 alternative embodiment of a rigid carton of packets of cigarettes in accordance with the present invention and in an open configuration.

BEST MODE FOR CARRYING OUT THE INVENTION

Number 1 in the accompanying drawings indicates as a whole a rigid carton of packets 2 of cigarettes, comprising a container 3 for a group 4 of packets 2 of cigarettes, and a container 5 housing container 3 in sliding manner, so as to enable container 3 to slide, with respect to container 5, between a closed position (Figure 3) wherein container 3 is fully inserted inside container 5, and an open position (Figure 1) wherein part of container 3 is extracted from container 5.

Each packet 2 of cigarettes is parallelepiped-shaped with two end walls and a lateral surface, which is bounded by the end walls and defined by two major, respectively front and rear, lateral walls, and by two minor lateral walls. In the embodiment shown in Figures 1, 2 and 3, group 4 of packets 2 of cigarettes comprises one row of packets 2 of cigarettes, in which the major lateral walls of packets 2 of cigarettes are arranged contacting one another; and, in the Figure 6 embodiment, group 4 of packets 2 of cigarettes comprises two side by side rows of packets 2 of cigarettes, in each of which the minor lateral walls of packets 2 of cigarettes are arranged contacting one another.

As shown in Figures 1, 2 and 3, container 5 is in the form of a tubular parallelepiped defined by a lateral surface 6, which comprises two opposite parallel lateral walls 7, a top wall 8, a bottom wall 9 opposite and parallel to top wall 9, one end closed by an end wall 10,

and an opposite end having an opening 11 through which container 3 slides between said closed position (Figure 3) and said open position (Figure 1).

Container 3 is cup-shaped, and comprises an open top end 12, a bottom wall 13 opposite open top end 12, two opposite parallel lateral walls 14, and two opposite parallel, respectively front and rear, end walls 15 and 16. When container 3 is in said closed position (Figure 3), each lateral wall 14 of container 3 is parallel to and faces a respective lateral wall 7 of container 5; bottom wall 13 of container 3 is parallel to and faces bottom wall 9 of container 5; open top end 12 of container 3 faces top wall 8 of container 5; rear end wall 16 of container 3 is parallel to and faces end wall 10 of container 5; and front end wall 15 of container 3 faces opening 11 of container 5.

Container 3 is sized to house group 4 of packets 2 of cigarettes with a small amount of clearance, and container 5 is sized to house container 3 with a small amount of clearance, thus minimizing the amount of packaging material required to produce containers 3 and 5, while at the same time minimizing the movement of packets 2 of cigarettes inside container 3, and the movement of container 3 inside container 5. Obviously, the clearance between packets 2 of cigarettes and container 3 cannot be totally eliminated, to enable packets 2 of cigarettes to be removed easily from container 3 by the user, and the clearance between

container 3 and container 5 cannot be totally eliminated, to enable the user to extract container 3 easily from container 5.

End walls 15 and 16 of container 3 are substantially the same size as a packet 2 of cigarettes, while lateral walls 14 of container 3 vary in height, are the same height as end walls 15 and 16 and packets 2 of cigarettes close to end walls 15 and 16, and are smaller in height than end walls 15 and 16 and packets 2 of cigarettes between end walls 15 and 16.

In the embodiment shown in Figures 1, 2 and 3, end wall 10 of container 5 has a hole 17 (Figure 3) shaped and sized to permit insertion of the user's finger. By way of example, the hole 17 shown in Figure 5 is rectangular with rounded corners, and ranges in size between 20x15 mm and 30x20 mm. The purpose of hole 17 is to assist extraction of container 3 from container 5, as of the closed position, by enabling the user to push on rear end wall 16 of container 3. In a variation not shown, wall 10 may be dispensed with entirely.

In the Figure 6 embodiment, each lateral wall 7 of container 5 has a recess 18 close to opening 11. More specifically, each recess 18 is in the form of a semicircle with a diameter ranging roughly between 20 mm and 30 mm. The purpose of recesses 18 is to assist extraction of container 3 from container 5, as of the closed position, by enabling the user to grip and pull on lateral walls 14 of container 3.

Carton 1 preferably comprises stop means for limiting slide of container 3 with respect to container 5 and so preventing detachment of container 3 from container 5, and which are defined by two tongues 19 projecting from lateral walls 14 of container 3, and by two tongues 20 projecting from lateral walls 7 of container 5. Each tongue 19 projects outwards of container 3 from a respective lateral wall 14 of container 3, and is located close to rear end wall 16 of container 3; each tongue 20 projects inwards of container 5 from a respective lateral wall 7 of container 5, and is located close to opening 11 of container 5; and each tongue 19 is so positioned as to engage the corresponding tongue 20 as container 3 is slid out of container 5, thus preventing detachment of container 3 from container 5.

In a further embodiment not shown, bottom wall 13 of container 3 comprises, for each packet 2 of cigarettes, a through hole sized to permit insertion of the user's finger, and which is located at the bottom wall of respective packet 2 of cigarettes to assist extraction of packet 2 of cigarettes from container 3.

In a further embodiment not shown, container 3 comprises supporting means for holding each packet 2 of cigarettes firmly in position inside container 3, and which are defined by a number of partitions inserted inside container 3 and defining a number of pockets, each for housing and holding a respective packet 2 of cigarettes firmly in place when container 3 is less than

full. The partitions are normally smaller in height than lateral walls 14 of container 3, and are connected to lateral walls 14 and/or bottom wall 13 of container 3.

Carton 1 normally comprises a known overwrapping (not shown) of transparent plastic material, normally polypropylene, enclosing container 5. In an alternative embodiment, as opposed to overwrapping container 5, carton 1 comprises an overwrapping of transparent plastic material enclosing container 3 together with group 4 of packets 2 of cigarettes, to allow the user to examine group 4 of packets 2 of cigarettes before purchasing carton 1.

As shown in Figure 4, container 3 is formed from a corresponding flat blank 21, which is substantially in the form of an elongated rectangle, and the component parts of which are indicated, where possible, using the same reference numbers, with superscripts, as for the corresponding parts of container 3.

Blank 21 comprises two longitudinal crease lines 22; and a number of transverse crease lines 23 defining, between longitudinal crease lines 22, a panel 14' defining a lateral wall 14, a panel 13' defining bottom wall 13, and a panel 14" defining the other lateral wall 14. Panel 14' has two tabs 15' and 16', which are located on opposite sides of panel 14', are separated from panel 14' by the two longitudinal crease lines 22, and define end walls 15 and 16.

Panel 13' has two tabs 24, which are located on

opposite sides of panel 13', are separated from panel 13' by the two longitudinal crease lines 22, and define respective inner portions of end walls 15 and 16; panel 14" has two tabs 25, which are located on opposite sides of panel 14", are separated from panel 14" by the two longitudinal crease lines 22, and define respective inner portions of end walls 15 and 16; and tabs 24 and 25 are so shaped as not to overlap when folded onto tabs 15' and 16'.

As shown in Figure 5, container 5 is formed from a corresponding flat blank 26, which is substantially in the form of an elongated rectangle, and the component parts of which are indicated, where possible, using the same reference numbers, with superscripts, as for the corresponding parts of container 5.

Blank 26 comprises a number of transverse crease lines 27, which define a panel 8' defining top wall 8, a panel 7' defining a lateral wall 7, a panel 9' defining bottom wall 9, and a panel 7" defining the other lateral wall 7. Panel 7' has a tab 10' separated from panel 7' by a longitudinal crease line 28 and defining end wall 10.

Panels 8', 9' and 7" have three respective tabs 29, 30 and 31, which are separated from corresponding panels 8', 9' and 7" by longitudinal crease line 28, define respective inner portions of end wall 10, and are so shaped as not to overlap when folded onto tab 10'. Panel 8' also has a tab 32 separated from panel 8' by a transverse crease line 27 and defining an inner portion

of a lateral wall 7.

In an alternative embodiment not shown, the longitudinal edges (between the lateral walls and the top and bottom wall) and/or the transverse edges (between the lateral walls and end walls) of container 3 and/or container 5 may be beveled or rounded. The longitudinal edges of container 3 must, obviously, be substantially the same shape and size as the longitudinal edges of container 5 to enable container 3 to slide smoothly with respect to container 5. More specifically, the edges of container 3 may be beveled or rounded to reproduce the same shape as the edges of packets 2 of cigarettes.

In a further embodiment not shown, at least one of walls 7, 8, 9, 10, 14, 15 may have at least one arc-shaped portion close to one of its edges, exactly as described and illustrated in Patent EP 1066206.

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